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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,445	03/12/2007	Deug Hee Lee	9988.244.00	4331
30827 7590 05/11/2010 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006				
EXAMINER WHATLEY, KATELYN B				
ART UNIT		PAPER NUMBER		
1714				
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05/11/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/555,445

**Applicant(s)**

LEE ET AL.

**Examiner**

KATELYN WHATLEY

**Art Unit**

1714

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 23-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-22 and 29 is/are rejected.
- 7) ☒ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/06)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- 7) ☐ Paper No(s)/Mail Date 06/08/2007 and 03/19/2010

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 1-9 and 23-28 were withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 04/09/2010. Claims 10-22, 29 are examined on the merits.

***Specification***

2. The abstract of the disclosure is objected to because it exceeds the 150 word limit that is allowed. Correction is required. See MPEP § 608.01(b).

***Drawings***

3. Figures 1, 2 and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

4. Claims 11 and 12 are objected to because of the following informalities: It is not clear if the claim positively recites the limitation or if the limitations are optional because of the use of the term 'may'. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 14 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. The term "relatively" in claim 14 is a relative term which renders the claim indefinite. The term "relatively" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Although the claim states the speed is lower, it does not state to what degree.

8. The term "low" in claim 22 is a relative term which renders the claim indefinite. The term "low" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The disclosure does not specify what is considered to be a low speed.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 10-12, 14-22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pre-Grant Publication 20020133886 to SEVERNS ET AL (hereby referred to as SEVERNS).

12. With regard to claim 10, SEVERNS teaches a method for operation a laundry device (**paragraph 0018 and figures 6-8**), by step (a): supplying steam (**paragraphs 102 and 137**) inside of a drum where laundry is introduced (**figures 6-8**), and a step (c) for centrifugally separating contaminants from the laundry by rotating the drum at high speed (**figures 6-8**).

13. SEVERNS does not explicitly teach a step (b) for stopping steam supply after a predetermined period of time. However, SEVERNS teaches steps have predetermined times (**figures 6-10 and paragraph 0143**). One with ordinary skill in the art at the time the invention was made would have found it obvious to have a predetermined wash time for supplying steam and to stop the application of steam at the end of the wash time.

14. With regard to claim 11, SEVERNS does not explicitly teach the temperature of the steam being supply in step (a) being at a higher temperature than the laundry may

be sterilized. However, one of ordinary skill in the art would have known that SEVERNS would be supplying the steam into a drum with a lower temperature than the steam, therefore the steam would lose energy and heat by the time it contacted the laundry. The steam would have to be supplied at a higher temperature than the laundry should be sterilized to achieve effected cleaning. One with ordinary skill in the art at the time the invention was made would have known to use a higher temperature steam at the exit to achieve a thorough cleaning.

15. With regard to claim 12, one with ordinary skill in the art would know that the method taught by SEVERNS would result in the laundry being soaked by steam when applied for a predetermined time in step (b).

16. With regard to claim 14, SEVERNS teaches the operation at a lower speed in a step (d) for discharging steam from the drum, which operates alternately with step (c) **(figures 6-10)**.

17. With regard to claim 15, SEVERNS does not teach the speed of rotation for the discharge of steam is lower than 100RPM; however, since applicants did not provide any criticality regarding the recited parameter, one skilled in the art would have found obvious to optimize the speed of the drum rotation for optimum result, consult In re Boesch and Slaney 205 USPQ 215 (CCPA 1980).

18. With regard to claim 16, SEVERNS teaches the time for operating step (d) is shorter than the time for rotating the drum at high speed **(figure 10)**.

19. With regard to claim 17, SEVERNS teaches a step (e) of spraying washing water in the drum before the steam in step (a) is supplied into the drum (**paragraphs 0197-0199**).
20. With regard to claim 18, SEVERNS teaches where the wash water in step (e) is in cold water state and not boiled (**paragraphs 0192, 0197-0199**).
21. With regard to claim 19, SEVERNS teaches a step (f) of spraying fluid detergent to the laundry before the (e) step (**figures 6-10**).
22. With regard to claim 20, SEVERNS teaches where the detergent in step (f) is a concentrated detergent in a fluid spray state (**applicator preferably a spray nozzle, paragraph 0080**).
23. With regard to claim 21, SEVERNS teaches rinsing the laundry by spraying steam or washing water in the drum after step (f) (**paragraph 0080 and 0102**).
24. With regard to claim 22, SEVERNS teaches where in the drum in step (a) is rotated at a low speed (**figures 9 and 10**).
25. With regard to claim 29, SEVERNS teaches a step (e) of spraying washing water in the drum before the steam in step (a) is supplied into the drum (**paragraphs 0197-0199**).
26. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pre-Grant Publication 20020133886 to SEVERNS ET AL as applied to claims 10 and 14 above, and further in view of U.S. Pre-Grant Publication 20050000033 to PARK ET AL (hereby referred to as PARK).

27. With regard to claim 13, SEVERNS does not explicitly teach the rotation speed for separating contaminants being 2000~4000RPM. However, PARK teaches rotating the drum at a speed of 1000~3000RPM to disperse air throughout the drum. One with ordinary skill in the art would have known to modify the cleaning method of SEVERNS to include the rotation speed taught by PARK that would allow for the steam to disperse and clean the laundry.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATELYN WHATLEY whose telephone number is (571)270-5545. The examiner can normally be reached on Monday-Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on (571)272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KATELYN WHATLEY/  
Examiner, Art Unit 1714  
/Michael Kornakov/  
Supervisory Patent Examiner, Art Unit 1714